

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2004280028 A

(43) Date of publication of application: 07.10.2004

(51) Int. Cl. G02F 1/355

// C03C 27/12

(21) Application number: 2003112145

(22) Date of filing: 13.03.2003

(71) Applicant: ALNAIR LABS:KK

NATIONAL INSTITUTE OF
ADVANCED INDUSTRIAL &
TECHNOLOGY

(72) Inventor: SAKAKIBARA YOICHI

TOKUMOTO MADOKA

KATAURA HIROMICHI

ACHINAMI HIROTSUGU

TANAKA YUICHI

MARK KENNETH ZHABORONSKI

SZE YUN SET

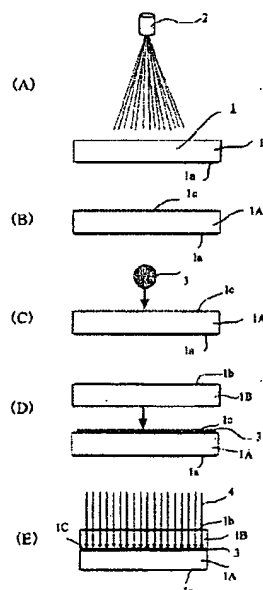
(54) SATURABLE ABSORPTION CHIP, ITS MANUFACTURING METHOD, AND DEVICE USING SATURABLE ABSORPTION CHIP

(57) Abstract:

PROBLEM TO BE SOLVED: To solve the problems with saturable absorption chips constituted by using carbon nanotubes that the chips are in a mechanically brittle state and have the structure inadequate for mass production and to improve saturable absorption.

SOLUTION: The invention comprises reinforcing the structure which is heretofore mechanically brittle by using two sheets of optical materials. In combination, the saturable absorption chips which are made suitable for mass production by using such optical materials and are provided with the chip structure having the stable saturable absorption characteristics to suppress reflection loss, the method for manufacturing the same and the saturable absorption device using the saturable absorption chips are included.

COPYRIGHT: (C)2005,JPO&NCIPI





PATENT ABSTRACTS OF JAPAN

(11) Publication number: **200428002**(43) Date of publication of application: **07.10.04**

(51) Int. Cl. **G02F 1/355**
// C03C 27/12

(21) Application number: **2003112145**(22) Date of filing: **13.03.2003**

(71) Applicant: **ALNAIR LABS:KK**
NATIONAL INSTITUTE OF
ADVANCED INDUSTRIAL &
TECHNOLOGY

(72) Inventor: **SAKAKIBARA YOICHI**
TOKUMOTO MADOKA
KATAURA HIROMICHI
ACHINAMI HIROTSUGU
TANAKA YUICHI
MARK KENNETH ZHABORO
SZE YUN SET

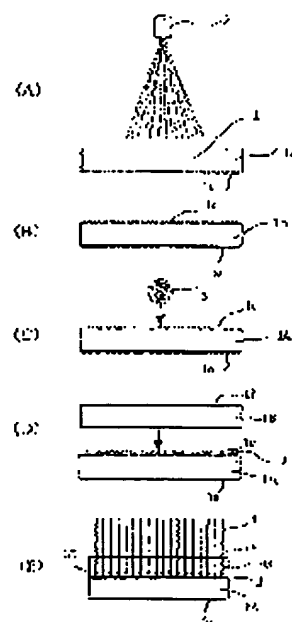
(54) SATURABLE ABSORPTION CHIP, ITS
MANUFACTURING METHOD, AND DEVICE
USING SATURABLE ABSORPTION CHIP

(57) Abstract:

PROBLEM TO BE SOLVED: To solve the problems with saturable absorption chips constituted by using carbon nanotubes that the chips are in a mechanically brittle state and have the structure inadequate for mass production and to improve saturable absorption.

SOLUTION: The invention comprises reinforcing the structure which is heretofore mechanically brittle by using two sheets of optical materials. In combination, the saturable absorption chips which are made suitable for mass production by using such optical materials and are provided with the chip structure having the stable saturable absorption characteristics to suppress reflection loss, the method for manufacturing the same and the saturable absorption device using the saturable absorption chips are included.

COPYRIGHT: (C)2005,JPO&NCIPI



DELPHION**RESEARCH****PRODUCTS****INSIDE DELPHION**[Log Out](#) [Work Files](#) [Saved Searches](#)[My Account](#)Search: [Quick/Number](#) [Boolean](#) [Advanced](#) [Der](#)**The Delphion Integrated View**Get Now: ☒ [PDF](#) | [More choices...](#)Tools: [Add to Work File](#): [Create new Work I](#)View: [INPADOC](#) | Jump to: [Top](#) [Go to: Derwent](#)[Email](#)**Title: JP2004280028A2: SATURABLE ABSORPTION CHIP, ITS MANUFAC METHOD, AND DEVICE USING SATURABLE ABSORPTION CHIP****Derwent Title:** Saturable absorption chip for optical communication device, has pair of substrates made of transparent optical material, between which carbon nanotube is fixed using ultraviolet cured resin ([Derwent Record](#))**Country:** JP Japan**Kind:** A2 Document Laid open to Public inspection i**Inventor:** SAKAKIBARA YOICHI;
TOKUMOTO MADOKA;
KATAURA HIROMICHI;
ACHINAMI HIROTSUGU;
TANAKA YUICHI;
MARK KENNETH ZHABORONSKI;
SZE YUN SET;**Assignee:** ALNAIR LABS:KK
NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL & TECHNOLOGY[News, Profiles, Stocks and More about this company](#)**Published / Filed:** 2004-10-07 / 2003-03-13**Application Number:** JP2003000112145**IPC Code:** [G02F 1/355](#); [C03C 27/12](#);**Priority Number:** 2003-03-13 JP2003000112145**Abstract:** PROBLEM TO BE SOLVED: To solve the problems with saturable absorption chips constituted by using carbon nanotubes that the chips are in a mechanically brittle state and have the structure inadequate for mass production and to improve saturable absorption.

SOLUTION: The invention comprises reinforcing the structure which is heretofore mechanically brittle by using two sheets of optical materials. In combination, the saturable absorption chips which are made suitable for mass production by using such optical materials and are provided with the chip structure having the stable saturable absorption characteristics to suppress reflection loss, the method for manufacturing the same and the saturable absorption device using the saturable absorption chips are included.

COPYRIGHT: (C)2005,JPO&NCIPI

Family: None**Other Abstract Info:** None



[this for the Gallery...](#)



[Nominate](#)



Copyright © 1997-2005 The Tho

[Subscriptions](#) | [Web Seminars](#) | [Privacy](#) | [Terms & Conditions](#) | [Site Map](#) | [Contact U](#)